

I claim:

1. A drilling fluid additive comprising an iron (II) based hydrogen sulphide scavenger chelated with a gluconate chelating agent which provides a stable complex with said iron at pH greater than about 9.
2. The drilling fluid additive of claim 1 which provides a stable complex with said iron at a pH of at least about 11.5.
3. The drilling fluid additive of claim 1 which provides said stability at subterranean formation temperatures.
4. The drilling fluid additive of claim 1 which provides said stability at temperatures ranging from ambient temperature to over 300 degrees Fahrenheit.
5. The drilling fluid additive of claim 1 which provides improved resilience to the rheological properties of said fluid.
6. In combination with a drilling mud comprising crosslinkable polymers delivered to a well during drilling operations, an additive for decreasing hydrogen sulphide concentration in the mud, the additive comprising an effective amount of a ferrous chelating agent mixed into the mud to reduce hydrogen sulphide concentration in the mud circulating in the well, wherein such additive fails to significantly cause crosslinking of

said polymers.

7. The additive of claim 6 wherein the iron in said ferrous chelating agent does not significantly ionize to a trivalent state in said mud.
8. The additive of claim 6 wherein said additive enhances the mud's ability to withstand well temperatures under shear.
9. A polymer based drilling fluid comprising ferrous gluconate.
10. A method of drilling a borehole in a subterranean formation containing hydrogen sulphide, said method comprising employing a polymer based drilling fluid having a pH greater than 9.0 and adding to the drilling fluid a quantity of ferrous gluconate sufficient to react with hydrogen sulphide entering said fluid from said formation such that sulphide is precipitated.
11. The method of claim 10 wherein said drilling fluid has a pH in the range of about 10 to about 12.
12. A method of drilling a borehole employing a polymer based drilling fluid having a pH greater than 9, said method comprising adding to the drilling fluid an additive comprising an iron (II) based hydrogen sulphide scavenger chelated with a gluconate chelating agent which provides a stable complex with said iron at said pH greater than 9.

13. The method of claim 12 wherein said drilling fluid additive provides a stable complex with said iron at a pH of at least about 10.5.
14. The method of claim 13 wherein said drilling fluid additive provides said stable complex at subterranean formation temperatures.
15. The method of claim 13 wherein said drilling fluid additive provides said stable complex at temperatures ranging from ambient temperature to over 300°F.
16. The method of claim 12 wherein said drilling fluid additive precipitates sulphide without damaging the rheological properties of the drilling fluid.